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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,500	01/17/2001	Mark L. Antes	5577-216	7225

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MYERS BIGEL SIBLEY & SAJOVEC  
PO BOX 37428  
RALEIGH, NC 27627

EXAMINER
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LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 11/23/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/764,500

Applicant(s)

ANTES ET AL.

Examiner

Wen-Tai Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2001 and 04 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/4/04, 9/23/01</u> ...   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

1. Claims 1-23 are presented for examination.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

3. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-23 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 09/764790. Although the conflicting claims are not identical, they are not patentably distinct from each other because they recite means and steps that are substantially the same and that would have been obvious to one of ordinary skill in the art. Furthermore, the subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: (1) establishing a procedure for transferring information relating to network security on a first processor (or primary processor) to a second processor (or backup processor) and (2) the transfer is facilitated by allowing the second processor to assume the same IP address and access to a common storage.

The mere difference between the instant application and Application No. 09/764790 is that the latter being conditioned for recovering from a failure of the primary processor, while the instant application does not set such limitation in the preamble. Such minor difference does not make the two applications patentably distinctive.

This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

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***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al.(hereafter "Nguyen") [U.S. Pat. No. 6609213] in view of Maritin [IBM SG24-5309-00].

7. Maritin is cited from Applicant's IDS filed on 9/26/2001.

8. As to claim 1, Nguyen teaches the invention substantially as claimed including: a method of transferring network communications from a first distribution processor [any of 14a –14d, Fig.1], which provides communications over a network in a distributed workload environment having target hosts which are accessed through the first distribution processor by a common network address, to a second distribution processor [18, Fig.1; Abstract; col.3, lines 21-40], the method comprising:

providing information sufficient to restart the transferred communications at the second distribution processor [34-36, Fig.2];

detecting takeover of the common address by the second distribution processor [38, Fig.2];

terminating existing network communications to the first distribution processor;  
restarting the transferred network communications at the second distribution processor utilizing the provided information [40, Fig.2];

routing both inbound and outbound network communications with target hosts utilizing the common network address through the second distribution processor; and processing both the inbound and the outbound network communications utilizing the common network address at the second distribution processor [42, Fig.2].

Nguyen does not specifically teach that the server engages in communications relating to network security. However, Nguyen teaches that the underlying server is situated in a server network employing a variety of network protocols for transmission of data between computing devices [col.4, lines 20-30]. Additionally, it is always desirable to Maritin teaches a secured virtual private network communication environment, wherein various security protocols are employed for protecting communications between the distribution processor and its target hosts.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Nguyen and Maritin by providing Nguyen's fault-tolerant technology in Maritin's system because an ordinary skill in art would recognize that (1) Nguyen's method is directly applicable to systems having

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servers (or processors) performing time-critical tasks; and (2) the availability of Maritin's virtual private network could be improved by protecting its processors from disruptions due to any type of failure using Nguyen's fail-over process.

9. As to claim 2, Nguyen and Maritin further teaches that the method further comprises the step of identifying transferred network security based communications local to the first distribution processor utilizing the common network address as distributed communications so as to cause communications utilizing the common network address and network security to be routed through the second distribution processor [Nguyen: col.7, lines 25-32].

10. As to claims 3-4, Nguyen further teaches that the step of providing information sufficient to restart communications comprises: (1) the step of transmitting, from the first distribution processor to the second distribution processor prior to termination of the existing secure communications to the first distribution processor, network security information from which network security relationships associated with the transferred network security based communications through the first distribution processor can be re-established at the second distribution processor and (2) the step of storing in a common storage accessible to the second distribution processor, network security information from which network security relationships associated with the transferred network security based communications through the first distribution processor can be re-established at the second distribution processor [col.5, lines 43-58; i.e., upon

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detection failure, Maritin's security related information, which could have been stored in the SAN, is sealed off from the failed first distribution processor and becomes accessible to the second distribution processor].

11. As to claims 5-8, Nguyen and Maritin further teaches that the step of restarting the transferred network security based communications at the second distribution processor utilizing the provided information, comprises the following steps carried out by the second distribution processor:

- obtaining the network security information from the common storage;

- establishing the security relationships associated with the transferred network security based communications through the first distribution processor at the second distribution processor;

- notifying target hosts associated with the transferred network security based communications that the second distribution processor has taken ownership of the transferred network security based communications;

- clearing the network security information from the common storage subsequent to the second distribution processor obtaining the network security information from the common storage; and

- identifying as non-distributed communications, ones of the transferred network security based communications local to the second distribution processor which were previously distributed communications routed through the first distribution processor.



[Note that the above steps are nominal recovery procedures involving transferring the roles and information of the first distribution processor was doing (as defined in Maritin) to the second distribution processor by allowing the latter full access to the information located in the SAN (as illustrated in Nguyen's Figs. 2-3) and taking over the common IP address].

12. As to claims 9-10, Nguyen and Maritin further teaches that the network security comprises Internet Protocol Security (IPSec)., wherein the information stored in the common storage comprises at least one of Phase 1 Security Association (SA) information, Phase 2 SA information and information relating the Phase 1 SA information to the Phase 2 SA information [Maritin: page 37, lines 21-22 and page 47, section 3.2.3 and section 3.2.4; note that Nguyen teaches that the fail-over technique is applicable to servers employing a variety of network protocols (see col.4, lines 20-30)] .

13. As to claims 11-23, since the features of these claims can also be found in claims 1-10, they are rejected for the same reasons set forth in the rejection of claims 1-10 above.

As for the additional limitation in claims 11- 20 engaging security protocols and processes such as IPSec, dynamic VIPA (DVIPA, IPSec Phase 1 SAs and Phase 2 Sas, IPSec Security Parameter Indexes (SPIs), and Internet Key Exchange (IKE): it is noted that Maritin teaches all the limitations under its nominal operation context at, e.g., pages 37-47 and in reference to Fig.10. It is obvious that when Nguyen's technique is

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applied to Maritin's system for transparently replacing the first distribution processor (which contains a first routing communication protocol stack) with its backup processor, all the aforementioned security related information and protocols are obviously retained and made accessible to the replacing processor through Nguyen's unique use of common IP address and SAN storage.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Douglas; et al. [U.S. Pat. No. 5652908];  
Richards; et al. [U.S. Pat. No. 6754707];  
Razzaghe-Ashrafi; et al. [U.S. Pat. No. 6202169];  
Shirriff; et al. [U.S. Pat. No. 6145094]; and  
Crichton et al. [U.S. Pat. No. 6104716].

15. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 days from the mail date of this letter. Failure to respond within the period for response will result in ABANDONMENT of the application (see 35 U.S.C. 133, M.P.E.P. 710.02, 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:


(703)872-9306 for official communications; and

(703)746-5516 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

November 12, 2004

  
11/12/04